EMS / OHSAS
INTERACTION OF ELEMENTS
WEBINAR

How To Properly Develop an Interaction of Elements for your Organization
• Welcome From PJR Headquarters:
  PJR
  755 W. Big Beaver Rd, Suite 1340
  Troy, MI 48084
  Phone: 1-800-800-7910
  Email: PJR@PJR.com

• Audience for today’s meeting

• Introduction of speaker

Today’s Session (1 Hour)
• Brief overview of PJR, ISO 14001 and OHSAS 18001
• Benefits of a detailed Interaction of Elements
• Overview and Requirements of an Interaction of Elements
• Certification Requirements
• Integrating an EMS and/or OHSMS with other standards
• Questions
PJR is accredited to grant certification for:

- ISO 9001
- ISO 14001
- AS 9100, 9110 & 9120
- ISO/TS 16949
- Responsible Recycling-R2
- RIOS
- ISO 13485
- SQF
- TL 9000
- OHSAS 18001
- ISO 27001
- RCMS® AND RC14001
- ISO 22000
- HAACP Compliance
- FSSC 22000
- e-Stewards (pending)
- ISO 50001 (pending)
14001 OVERVIEW

- ISO 14001 is an internationally accepted standard that defines the requirements for establishing, implementing and operating an Environmental Management System

- An Environmental Management System (EMS) is a framework that allows an organization to consistently control its significant impacts on the environment, reduce the risk of pollution incidents, ensure compliance with relevant environmental legislation and continually improve its processes and operations.

- Standard first came out in 1996 and then revised in 2004

- Voluntary

- Guidance document is 14004:2004 and 19011
OHSAS 18001 OVERVIEW

- OHSAS 18001 is an internationally accepted standard that defines the requirements for establishing, implementing and operating an Occupational, Health & Safety (OHS) Management System

- An OHS is a framework that allows an organization to consistently control its hazards, reduce the risk of accidents, injuries, down time and continually improve its processes and operations.

- Standard first came out in 1999 and then revised in 2007

- Voluntary
PDCA CYCLE
BENEFITS OF GETTING CERTIFIED

**General**
- Maintaining compliance to legal requirements
- Meeting customer and interested party requirements
- Continual Improvement

**EMS**
- Reduces resource use like energy, water etc.
- Reduces waste disposal costs and problems
- Reduces pollution

**OHSMS**
- Minimizing the risks of production delays
- Providing a safe environment to do business
- Possible cost savings from public liability insurance premiums
BENEFITS OF DEVELOPING A ROBUST IOE

• Understand the full extent of all processes and their interaction
• Ensure all Environmental aspects and impacts have been identified
• Ensure all OHS risks and hazards have been identified
• Ensure significant aspects and risks have programmes and controls implemented (including compliance to legal requirements).
• Establish proper monitoring and measurement controls around aspects and risks.
Requirement: 4.4.4 Documentation

c) Interaction of Elements

**EMS**
Description of the main elements of the *environmental management system* and their interaction, and reference to related documents.

**OHSAS**
Description of the main elements of the *OH&S management system* and their interaction, and reference to related documents.
What is an Interaction of Elements (IOE)

An Interaction of Elements is meant to incorporate and integrate all of the main requirements of an EMS and/or OHSMS to ensure all requirements have been met and to show the linkages between the following:

• Environmental aspects / OHS risk
• Objectives and targets
• Programmes
• Performance indicators
• Operational controls
• Monitoring and measurement processes
What Should be Included in an IOE

Interaction of Processes:

- Sales / Purchasing
- Receiving
- Sorting / Inventory
- Inspection
- Auditing
- Demanufacturing
- Reuse
- Storage / Packaging
- Shipping
What Should be Included in an IOE

Interaction of Processes with operational controls:

- **Auditing**
  - WI A1
  - WI A2
  - WI A3

- **Demanufacturing**
  - WI D1
  - WI D2

- **Reuse**
  - SOP R1 Data Erasure
  - SOP R2 Testing Criteria
  - WI R1
  - WR R2

- **Storage / Packaging**
  - WI S1
  - WI S2
  - WI P1
  - WI P2
What Should be Included in an IOE

- Inputs
  - Environmental Aspects
  - OHS Risks

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Operations</td>
<td>Receiving</td>
</tr>
<tr>
<td>Use of Propane Forklift</td>
<td>Sorting / Inventory</td>
</tr>
</tbody>
</table>
| Use of Computers, conveyors, etc.
  - Use of Paper
  - Handling of sharp objects  | Inspection              |
| Use of electricity
  - Use of Paper for labeling
  - Opening of packages        |                         |
What Should be Included in an IOE

- Outputs
  - Environmental Impacts
  - OHS Hazards

**Inputs**
- Building Operations
- Use of Propane Forklift
- Use of Computers, conveyors, etc.
- Use of Paper, pallets, etc.
- Handling of sharp objects
- Use of electricity
- Use of Paper for labeling
- Opening of packages

**Processes**
- Receiving
- Sorting / Inventory
- Inspection

**Outputs**
- Energy Consumption
- Propane Consumption
- Accidents from Forklift
- Energy consumption
- Paper and wood consumption
- Cuts, scrapes, etc.
What Should be Included in an IOE

- Outputs
  - Objectives, targets and Programmes
  - Key Performance Indicators (KPIs)

<table>
<thead>
<tr>
<th>Processes</th>
<th>Outputs</th>
<th>OT&amp;P and KPIs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receiving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sorting / Inventory</td>
<td>Energy Consumption</td>
<td>Reduction of energy consumption</td>
</tr>
<tr>
<td>Inspection</td>
<td>Energy consumption</td>
<td>- Energy Conservation Program</td>
</tr>
<tr>
<td></td>
<td>Paper and wood consumption</td>
<td>- No Forklift incidents</td>
</tr>
<tr>
<td></td>
<td>Cuts, scrapes, etc.</td>
<td>- Forklift safety program</td>
</tr>
<tr>
<td></td>
<td>Energy consumption</td>
<td>Reduce amount of paper consumption by %</td>
</tr>
<tr>
<td></td>
<td>Paper Consumption</td>
<td>Reduce # of incidences</td>
</tr>
<tr>
<td></td>
<td>Cuts, Scraps, etc.</td>
<td>- PPE Program</td>
</tr>
<tr>
<td></td>
<td>Energy Consumption</td>
<td>Reduce amount of paper consumption by %</td>
</tr>
<tr>
<td></td>
<td>Propane Consumption</td>
<td>Reduce # of incidences</td>
</tr>
<tr>
<td></td>
<td>Accidents from Forklift</td>
<td>- PPE Program</td>
</tr>
</tbody>
</table>
What Should be Included in an IOE

- Outputs
  - Operational Controls

### Processes
- Receiving
- Sorting / Inventory
- Inspection

### Outputs
- Energy
- Accidents
- Energy
- Paper
- Energy
- Injuries

### OT&P and KPIs
- Energy consumption
- Forklift incidents
- Paper consumption # of incidences
- Reduce # of incidences

### Operational Controls
- Procedure for safe forklift operation
- Procedure for proper labeling
- PPE procedure
What Should be Included in an IOE

- Outputs
  - Monitoring and Measurement

<table>
<thead>
<tr>
<th>Processes</th>
<th>Outputs</th>
<th>OT&amp;P and KPIs</th>
<th>Operational Controls</th>
<th>Mon and Meas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receiving</td>
<td>• Energy</td>
<td>• Energy consumption</td>
<td>• Procedure for safe forklift operation</td>
<td>• Frequent inspections</td>
</tr>
<tr>
<td></td>
<td>• Accidents</td>
<td>• Forklift incidents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sorting / Inventory</td>
<td>• Energy</td>
<td>• paper consumption # of incidences</td>
<td>• Procedure for proper labeling</td>
<td>• Frequent Inspections</td>
</tr>
<tr>
<td></td>
<td>• Paper</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspection</td>
<td>• Energy</td>
<td>• paper consumption</td>
<td>• PPE procedure</td>
<td>• Frequent Inspections</td>
</tr>
<tr>
<td></td>
<td>• Injuries</td>
<td>• Reduce # of incidences</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
What Should be Included in an IOE

- **Inputs**
  - Sales / Purchasing
  - Receiving
  - Sorting / Inventory
  - Inspection
  - Auditing
  - Demand
  - Storage / Packaging
  - Shipping

- **Processes**

- **Outputs**

- **OT&P and KPIs**

- **Operational Controls**

- **Mon and Meas**

www.pjr.com
## Alternative Methods for IOEs

<table>
<thead>
<tr>
<th>Aspects</th>
<th>Objectives</th>
<th>Targets</th>
<th>Programmes</th>
<th>Indicators</th>
<th>Monitoring and measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission of oxides of nitrogen ($NO_x$)</td>
<td>Increase positive impact on air quality by improving effectiveness of fleet maintenance</td>
<td>Achieve 25% reduction of $NO_x$ emissions by 2008</td>
<td>Identify key maintenance parameters for $NO_x$ reduction.</td>
<td>% on-time maintenance. $NO_x$ emissions/$km.</td>
<td>Maintenance procedures. Training of maintenance technicians.</td>
</tr>
<tr>
<td>Generation of waste oil</td>
<td>Manage oily waste in conformity with requirements</td>
<td>Achieve 100% conformity with oily waste disposal requirements at service centres within one year</td>
<td>Develop and implement waste management training programme at service centers.</td>
<td>% of service centre employees trained.</td>
<td>Waste management procedures. Training programmes for service centre employees.</td>
</tr>
</tbody>
</table>
CERTIFICATION REQUIREMENTS

Certification Steps:
- Establish Documentation to meet ISO14001 and/or OHSAS 18001 requirements
- Integrate with existing systems (e.g. ISO 9001, R2, RIOS, ISO 50001)
- Training to EMS and/or OHSMS requirements
- Implement EMS and/or OHSMS requirements
  - Conduct internal audits of system
  - Conduct compliance evaluation
  - Conduct review of system based on input from internal audit
- Contract with a certification body
- Complete S1 and S2 audits
  - Address any nonconformities $\rightarrow$ ☺ Certification!

www.pjr.com
Certification Process

PJR conducts a cursory review of documents in house prior to Stage 1

The registration audit consists of two stages:

- **Stage 1:**
  - On-site document review of your EMS
  - Evaluates the readiness of your organization to move to stage 2.

- **Stage 2:**
  - Scheduled 30 to 45 days after the stage 1 audit.
  - On-site audit of your entire EMS.
  - Nonconformities will need to be resolved prior to issuing of the certificate.
CERTIFICATION REQUIREMENTS

• Surveillance audits
  - Scheduled at either six or twelve month intervals depending on the contract.
  - Partial system audit.

• Re-certification audit
  - On-site audit conducted prior to the third anniversary of the initial certification
  - Surveillance visits will then continue, as before, on a 3-year cycle.
Multisite Certification

One HQ with multiple locations doing the same activity

Pros
• One corporate certificate with sites listed in appendix
• Sampling is allowed
• Reduced man-days if same LA is available to audit most locations

Cons

• Risk of losing certification if any of the sites in the group falters
INTEGRATED AUDITS

- Can easily integrate and EMS/OHSMS with other standards like ISO 9001, ISO 50001, R2 and RIOS.

- Audit time can be discounted up to 20% for each standard to be integrated, provided there is proof of full integration
  - Integrated audits by internal auditors qualified for all standards being integrated
  - One corrective action system to manage system nonconformities
  - A single management review addressing all standards’ inputs and outputs
  - Integrated policy, procedures manual
  - Competency/training records handled in one system
  - Subcontract/supplier management handled in one program
  - For EMS/OHSMS integration – a single compliance audit
  - Most likely accomplished by a single Management Representative.

- Systems that are found not to be integrated at the Stage 1 will result in PJR increasing the audit time.
  - There is a difference between simultaneous vs. integrated audits!
Please type any questions you may have.
For additional technical information, please contact Scott Jones

Scott Jones  
EHS Program Manager  
Perry Johnson Registrars, Inc.  
Phone: (248) 358-3388  Ext 4827  
Email: sjones@pjrc.com

For a quote, please contact the sales department at:  
1-800-800-7910